

FIG. 1

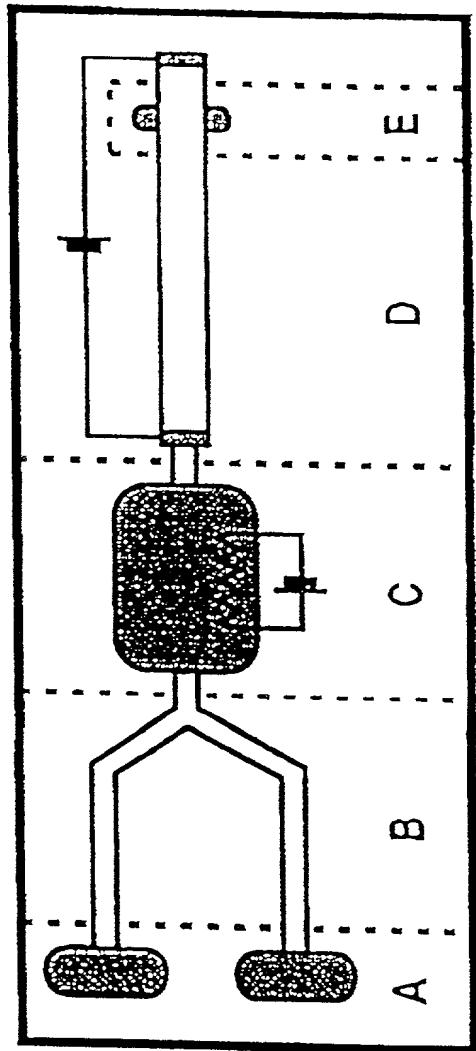
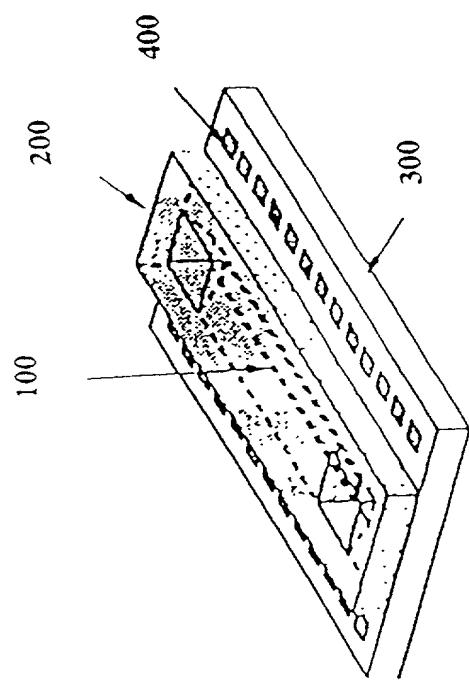


FIG. 2



WATER FLOW DIRECTION

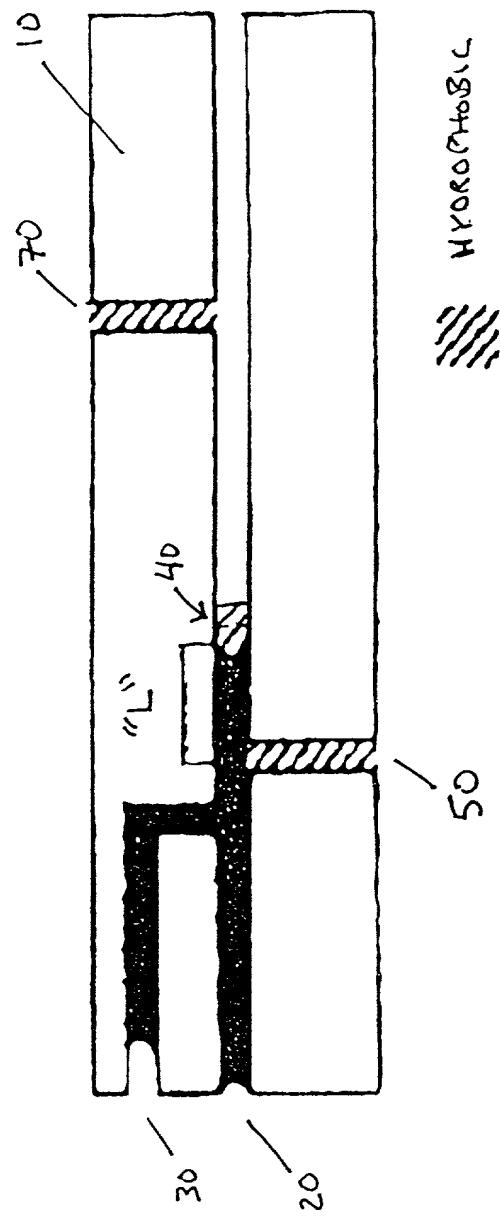


FIGURE 3A

Hydrophobic

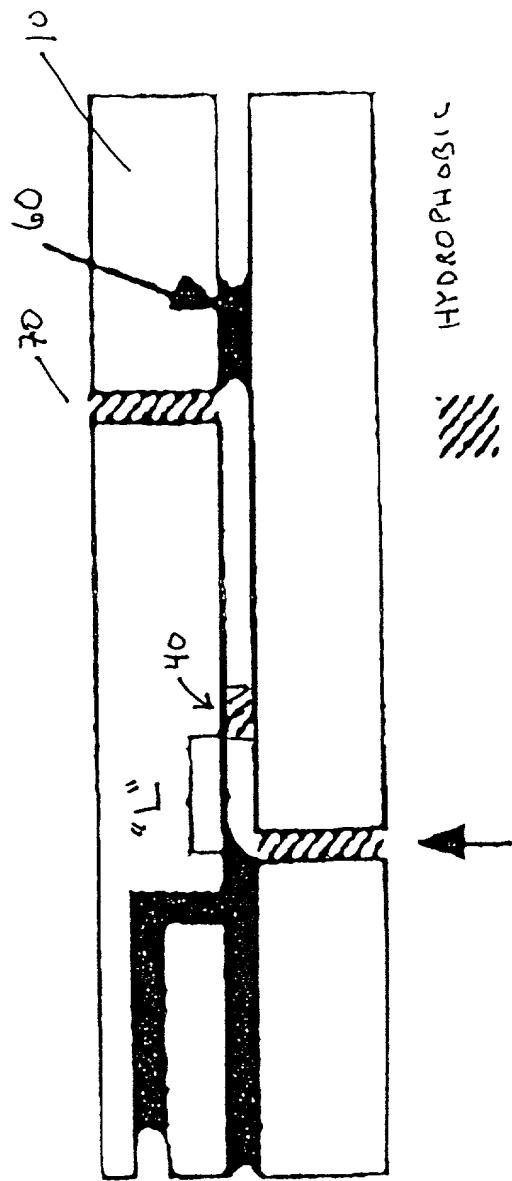


FIGURE 3B

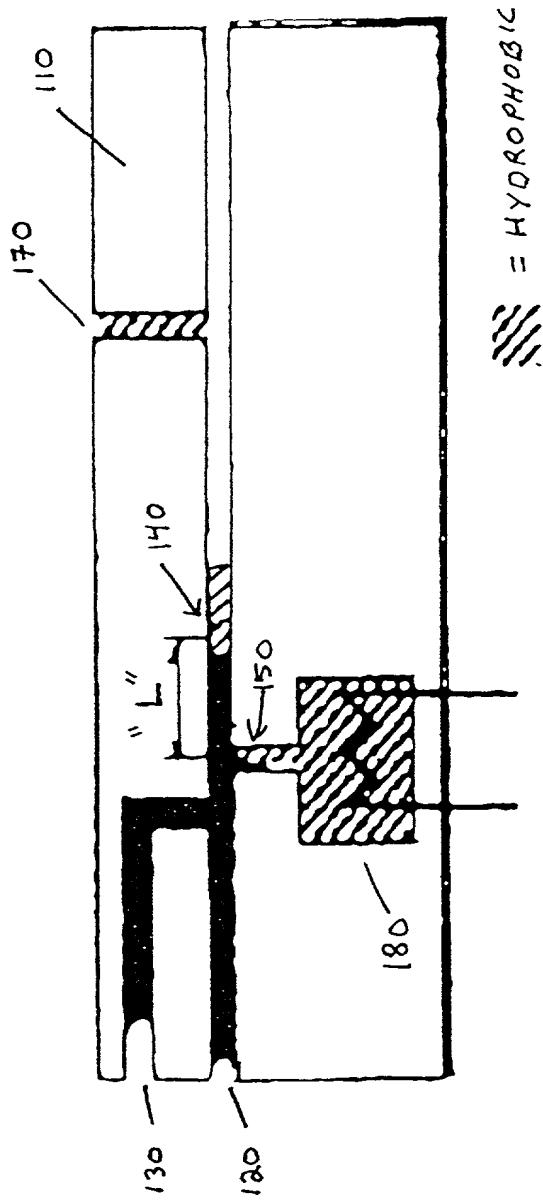


FIGURE 4A

Hydrophobic

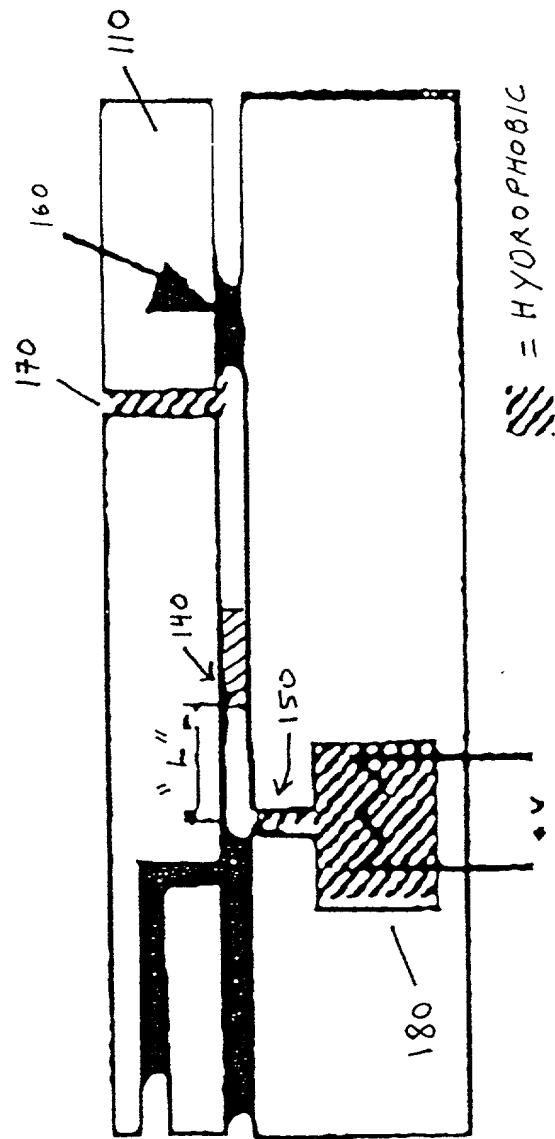
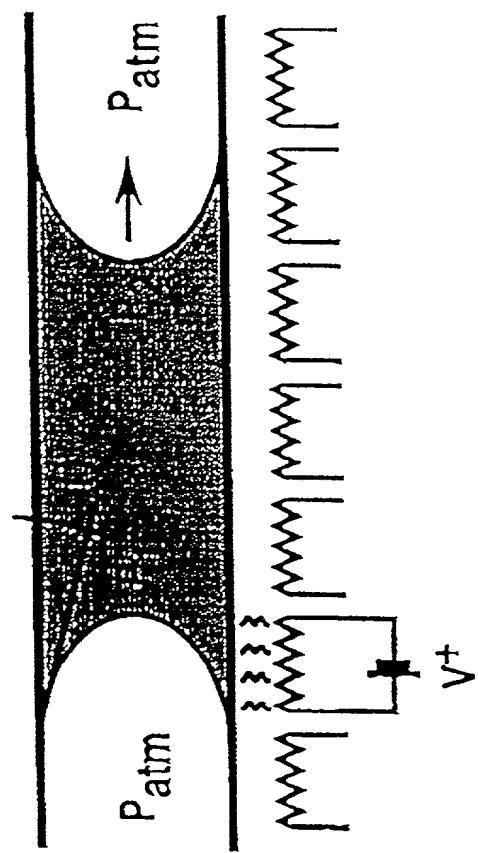


FIGURE 4B

FIGURE 5



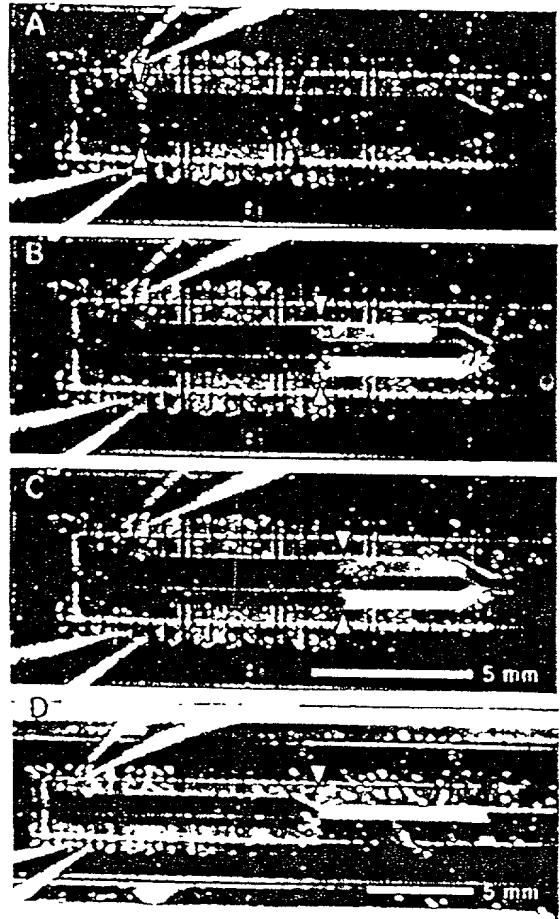


FIGURE 6

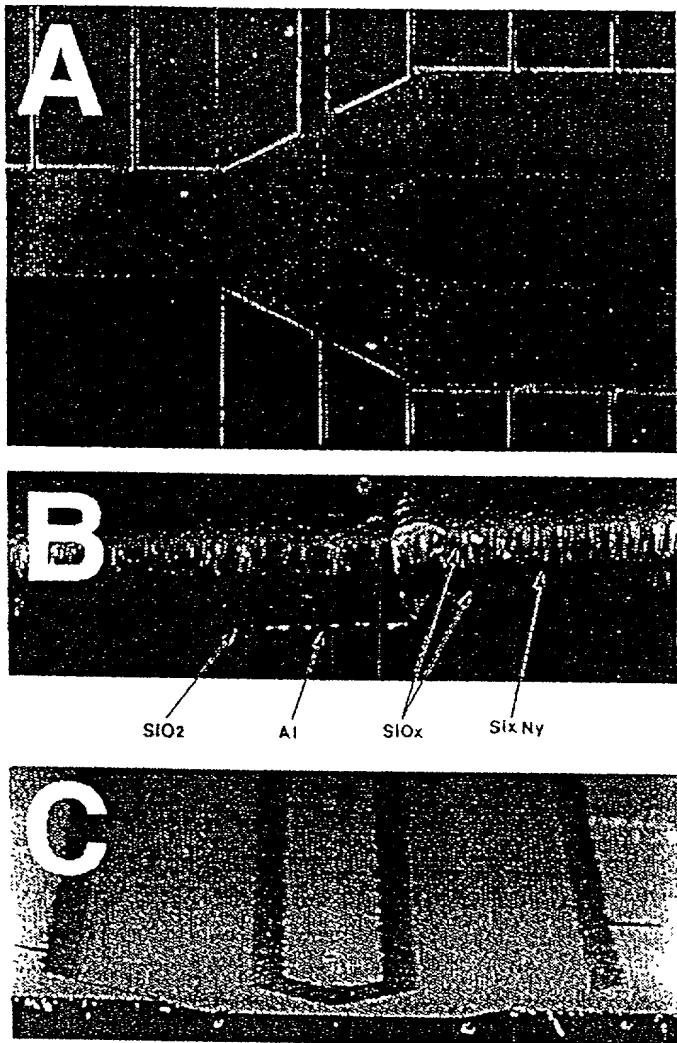


FIGURE 7

870 871 872 873 874 875 876 877 878 879

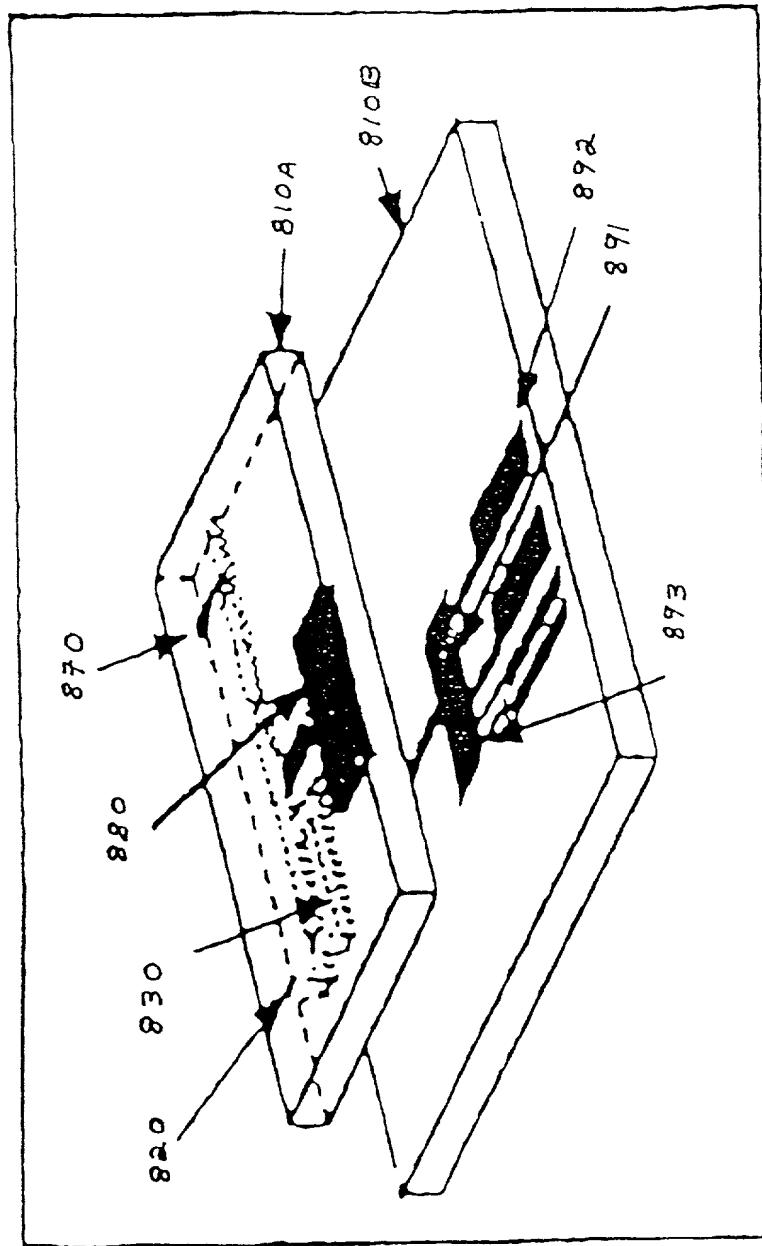


FIGURE 8A

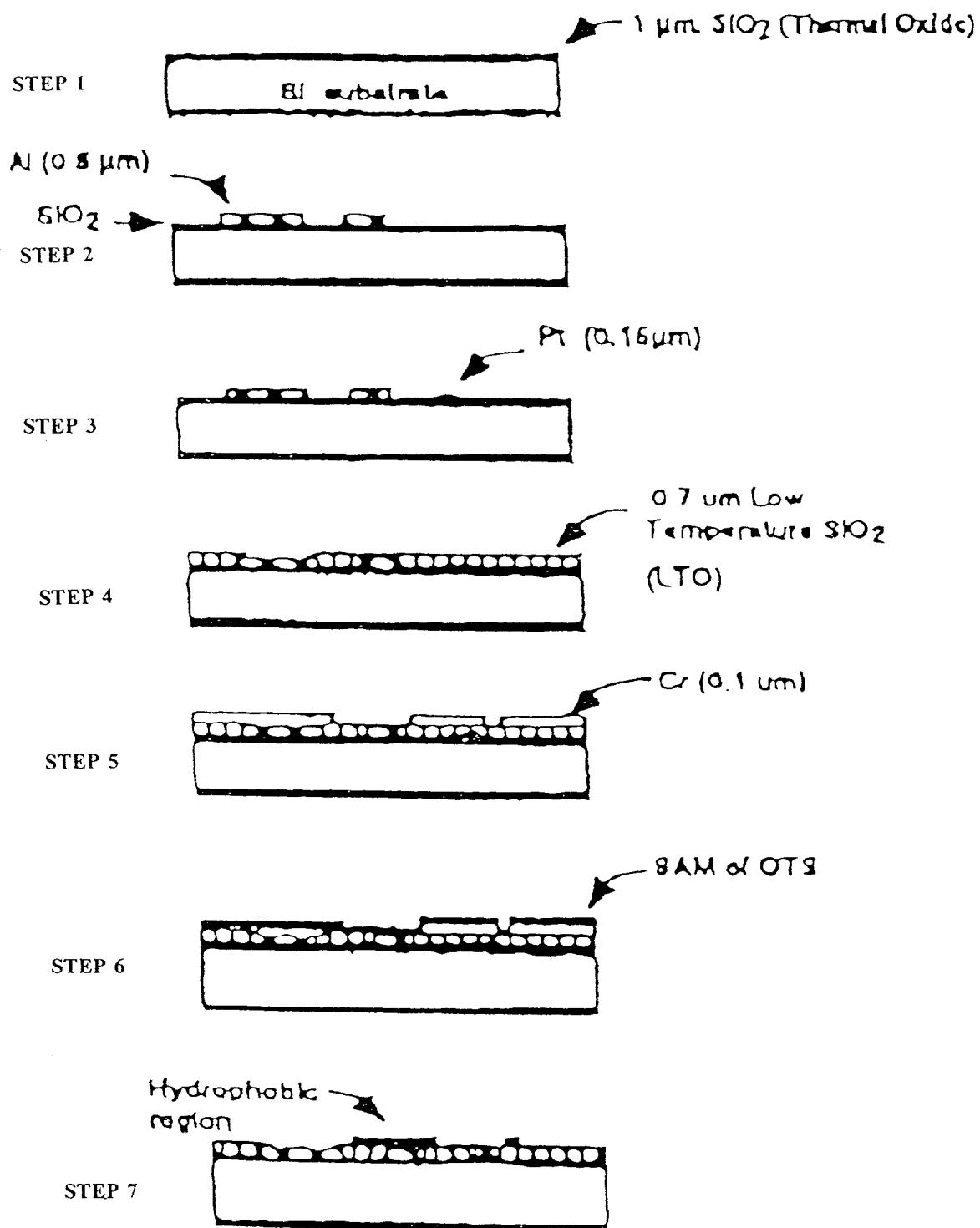


FIGURE 8B

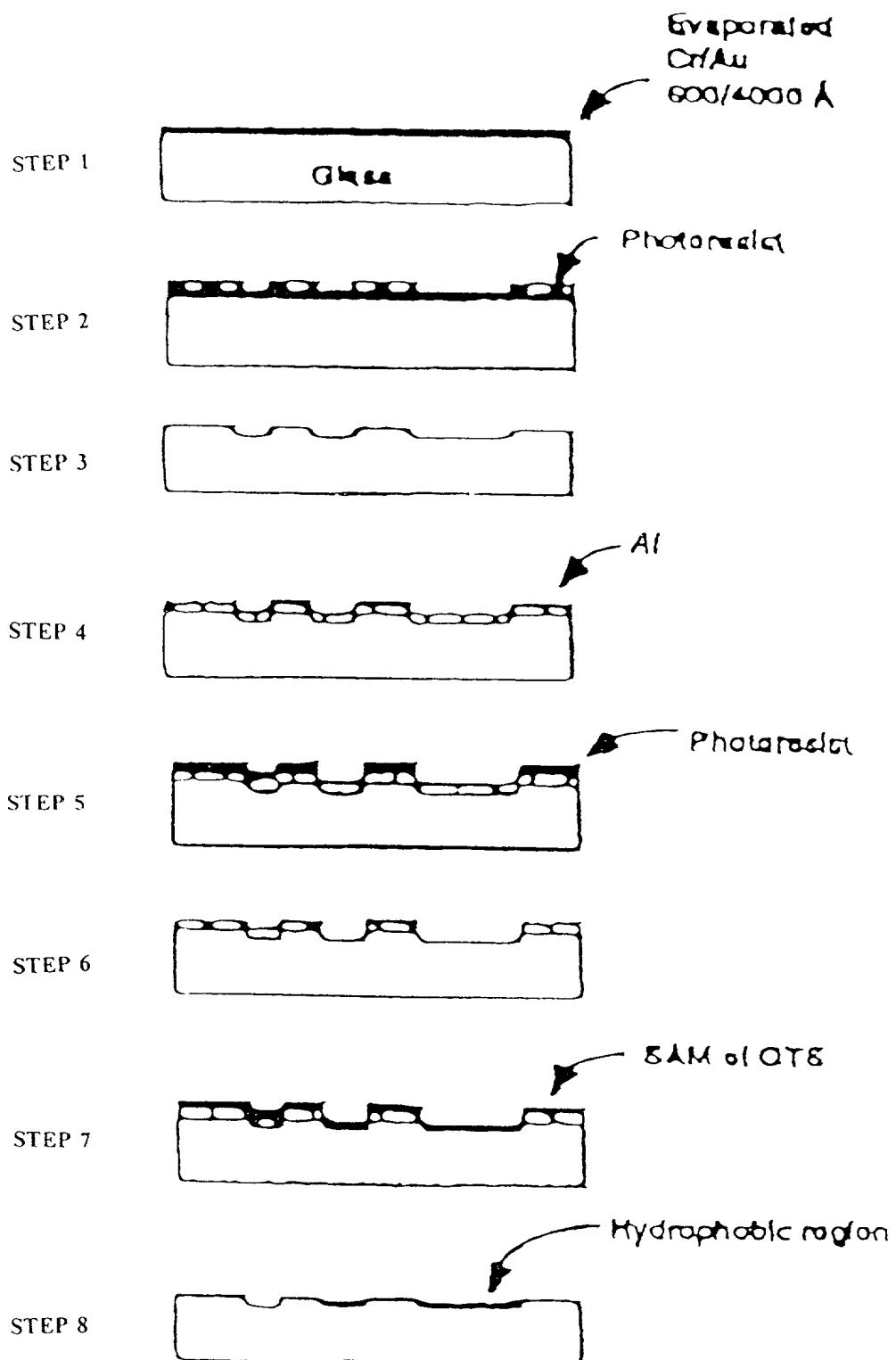


FIGURE 8C

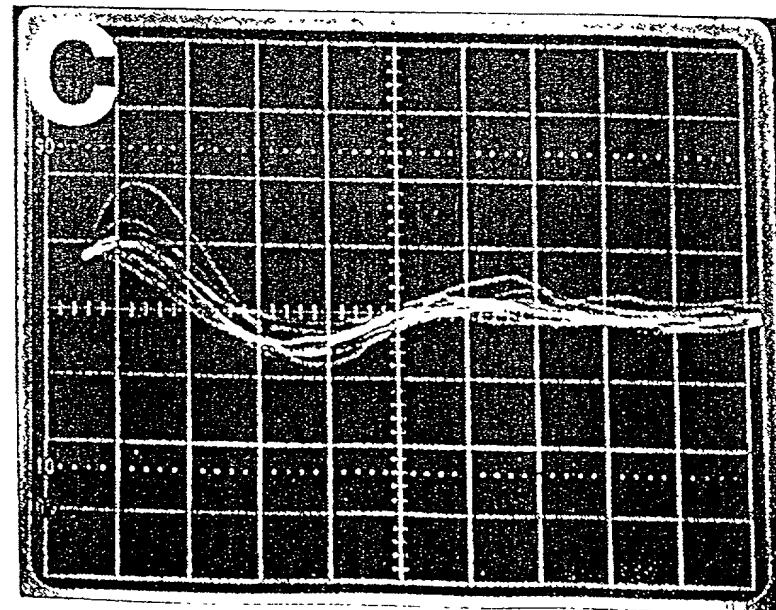
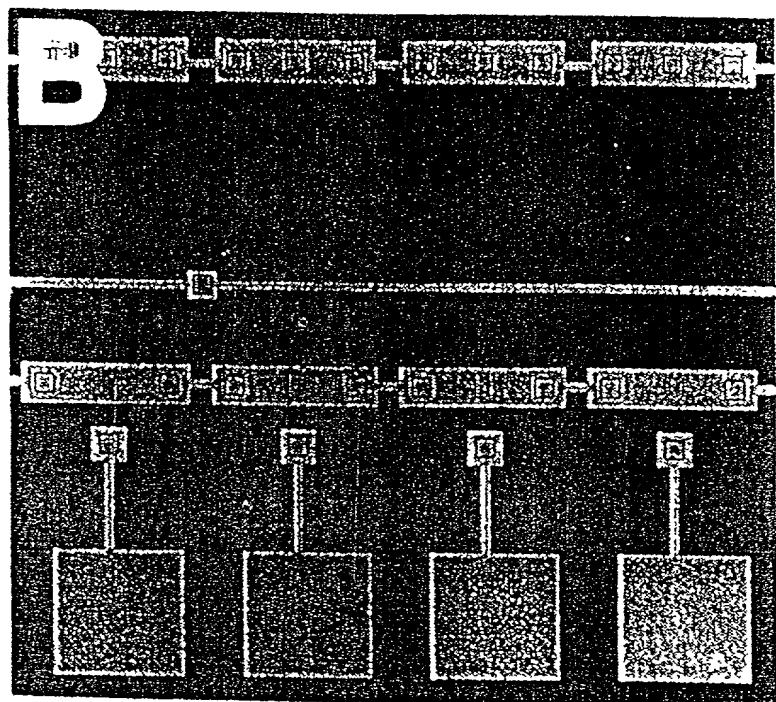
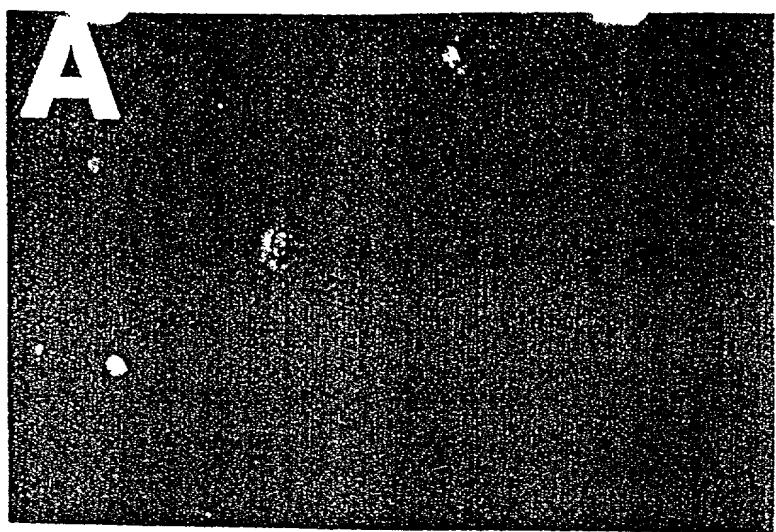
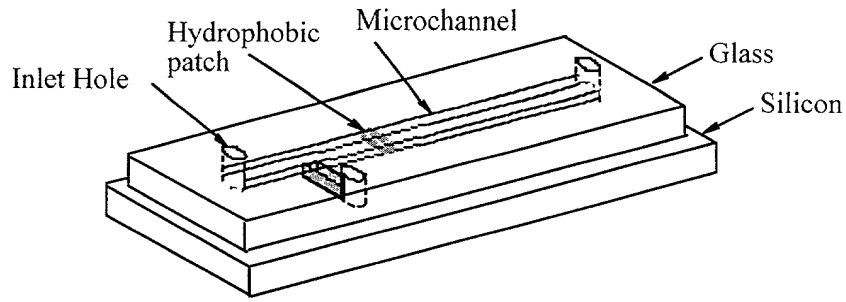
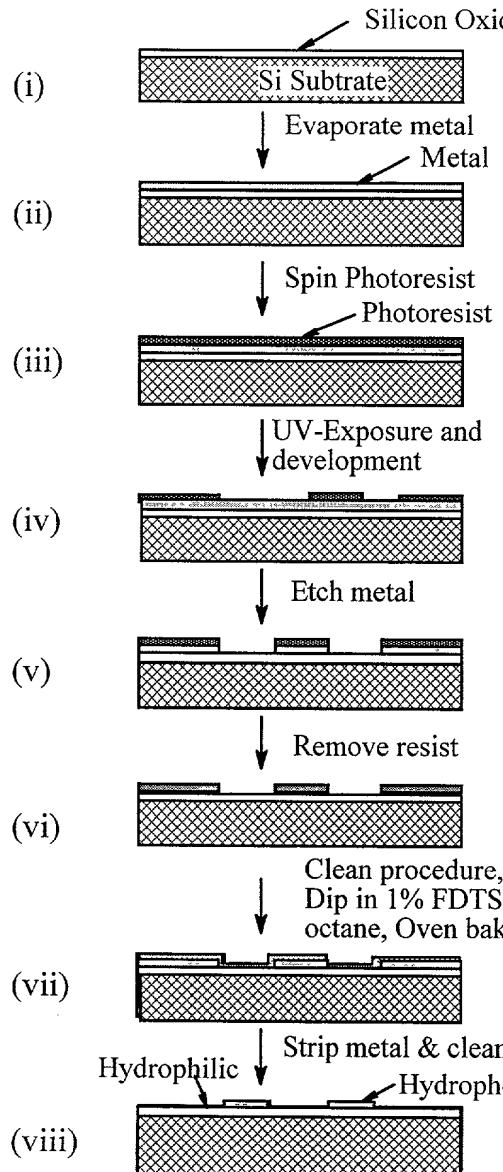


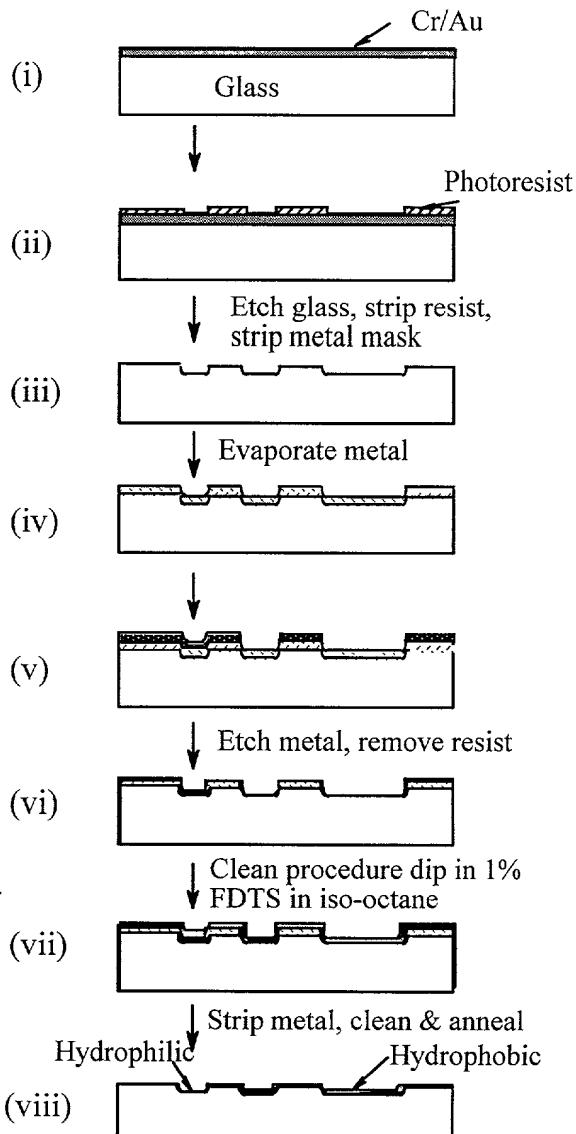
FIGURE 9



(a)

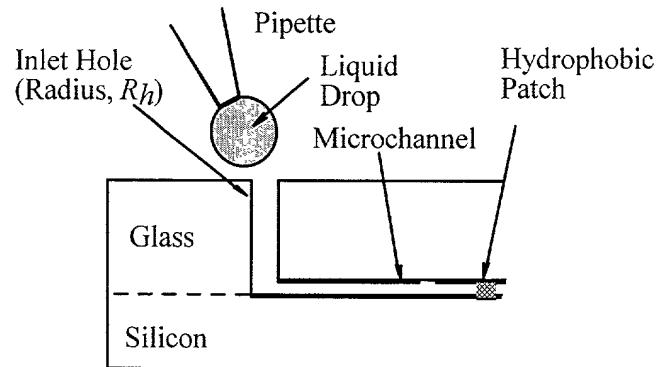


(b)

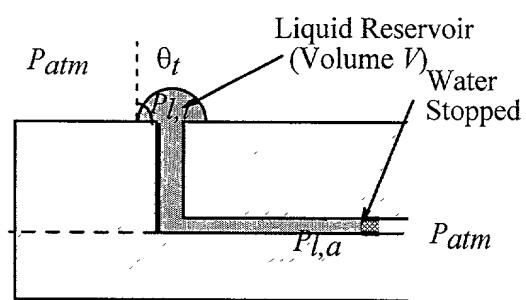


(c)

Figure 10

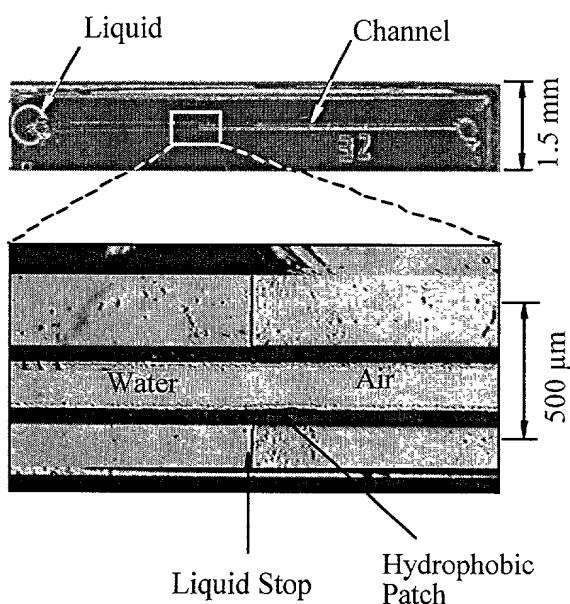


(i)



(ii)

(a)



(b)

Figure 11

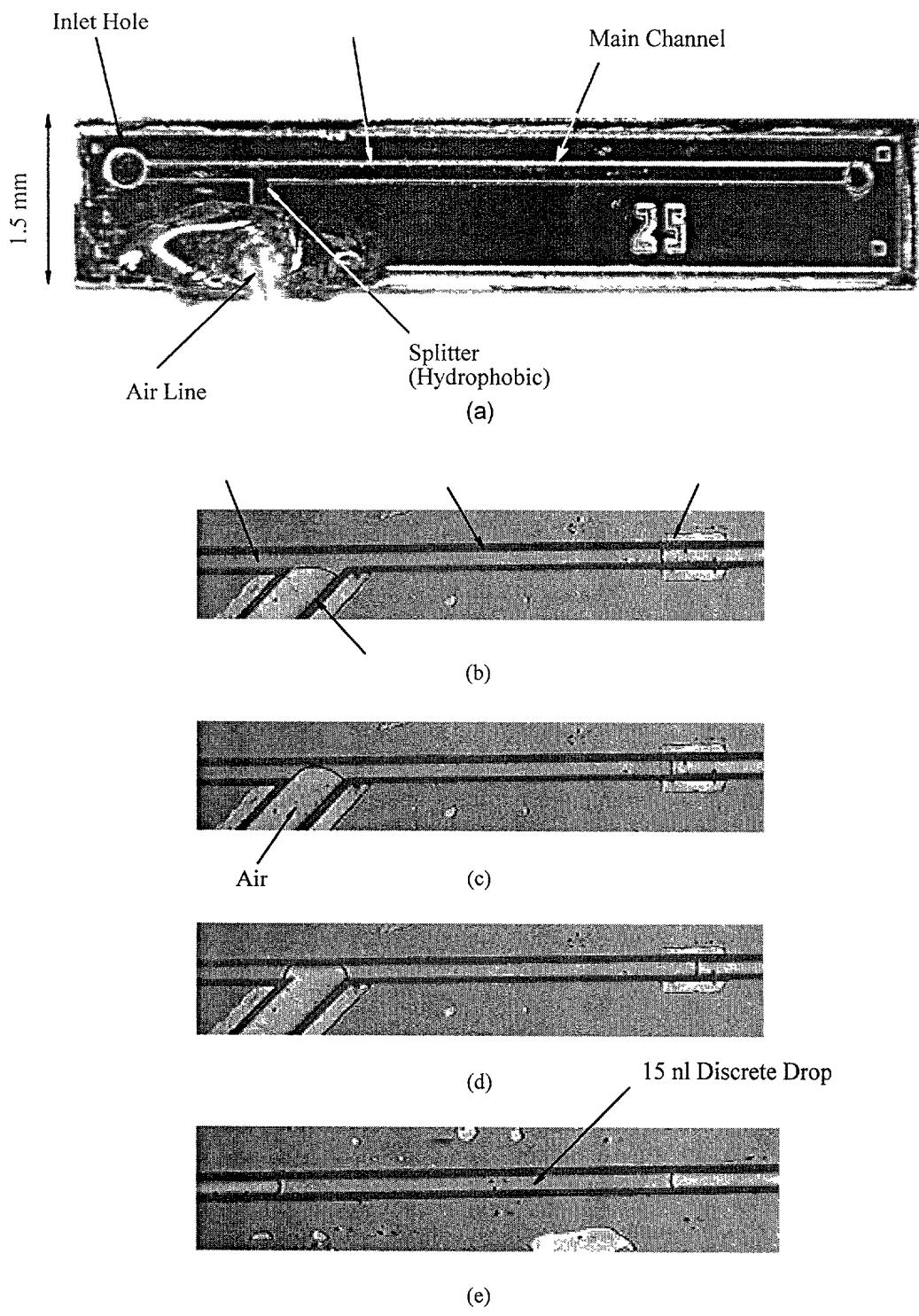
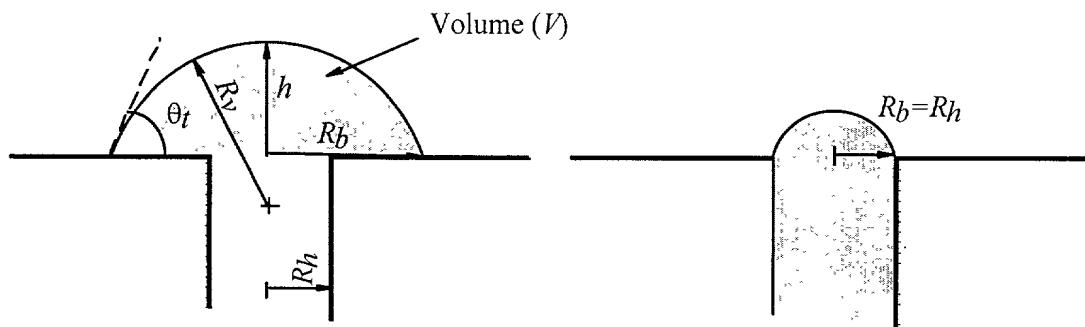


Figure 12



(a)

(b)

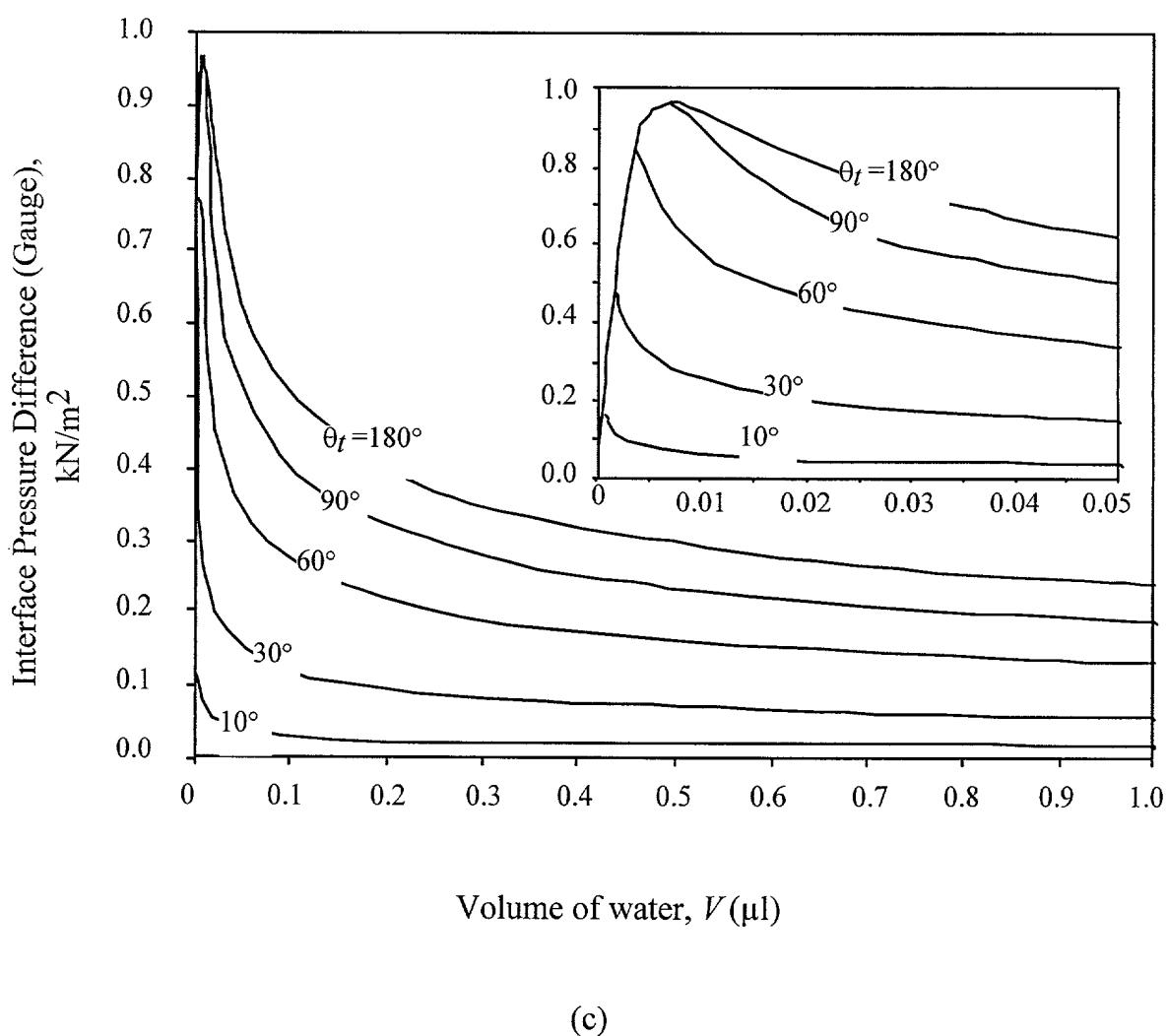
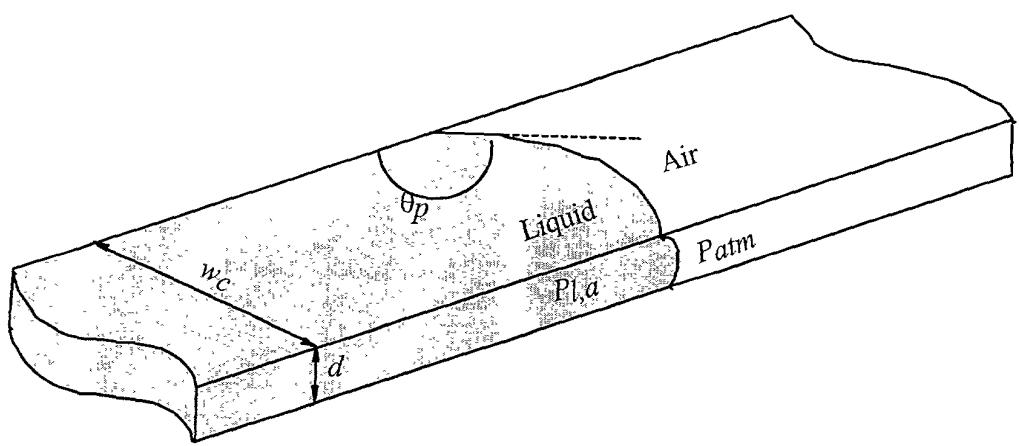
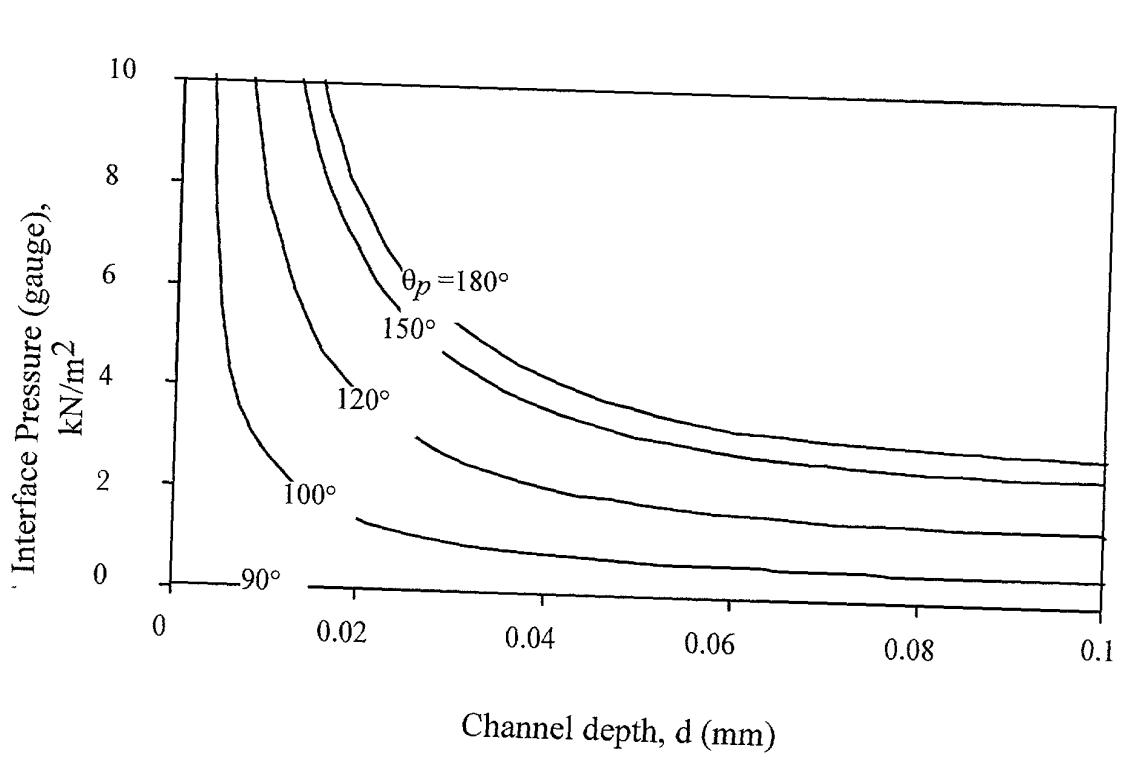


Figure 13



(a)



(b)

Figure 14

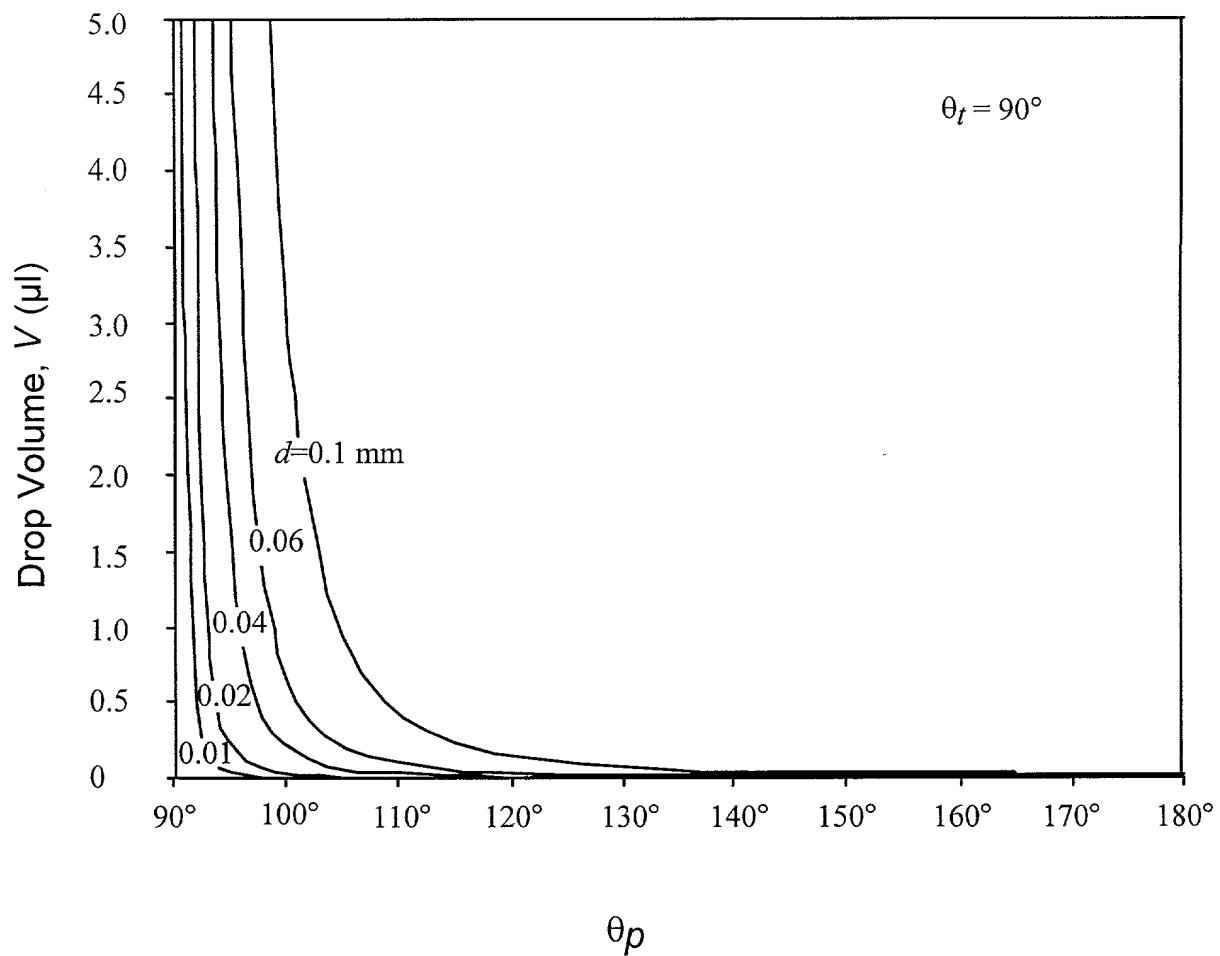
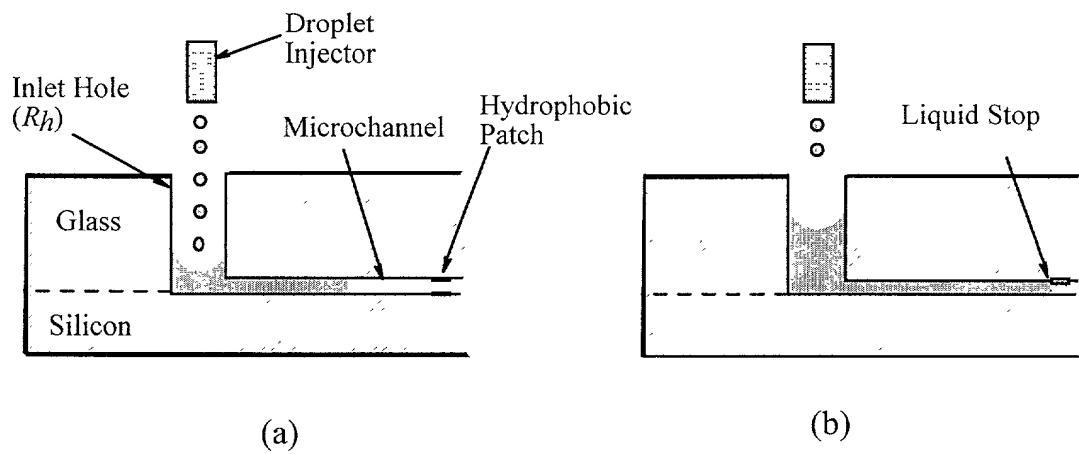
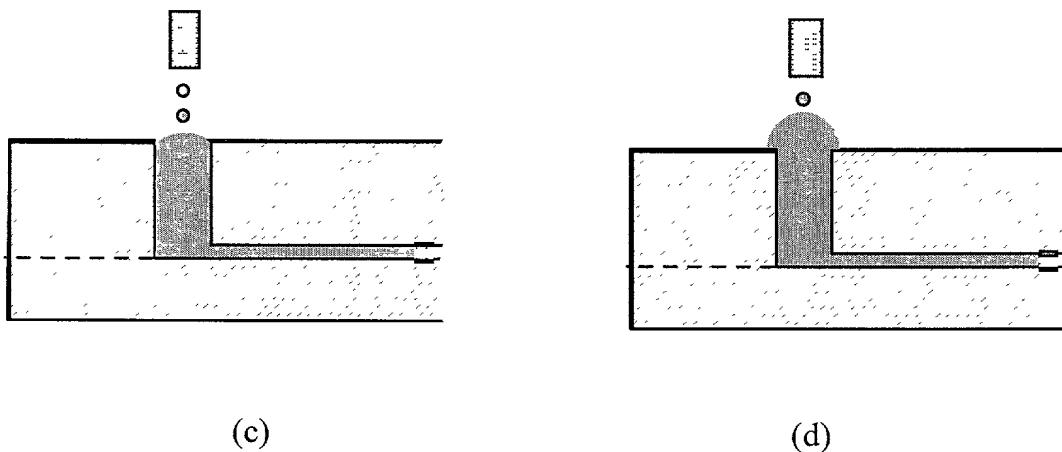


Figure 15



(a)

(b)



(c)

(d)

Figure 16

$\theta_{p,r}$ $d_{c,r}$ $d_{s,r}$ $w_{c,r}$ $w_{s,r}$ L_d P_{atm} P_m P_s $R_{c,r}$ R_{c,r_+} V_a V_b w_c w_s

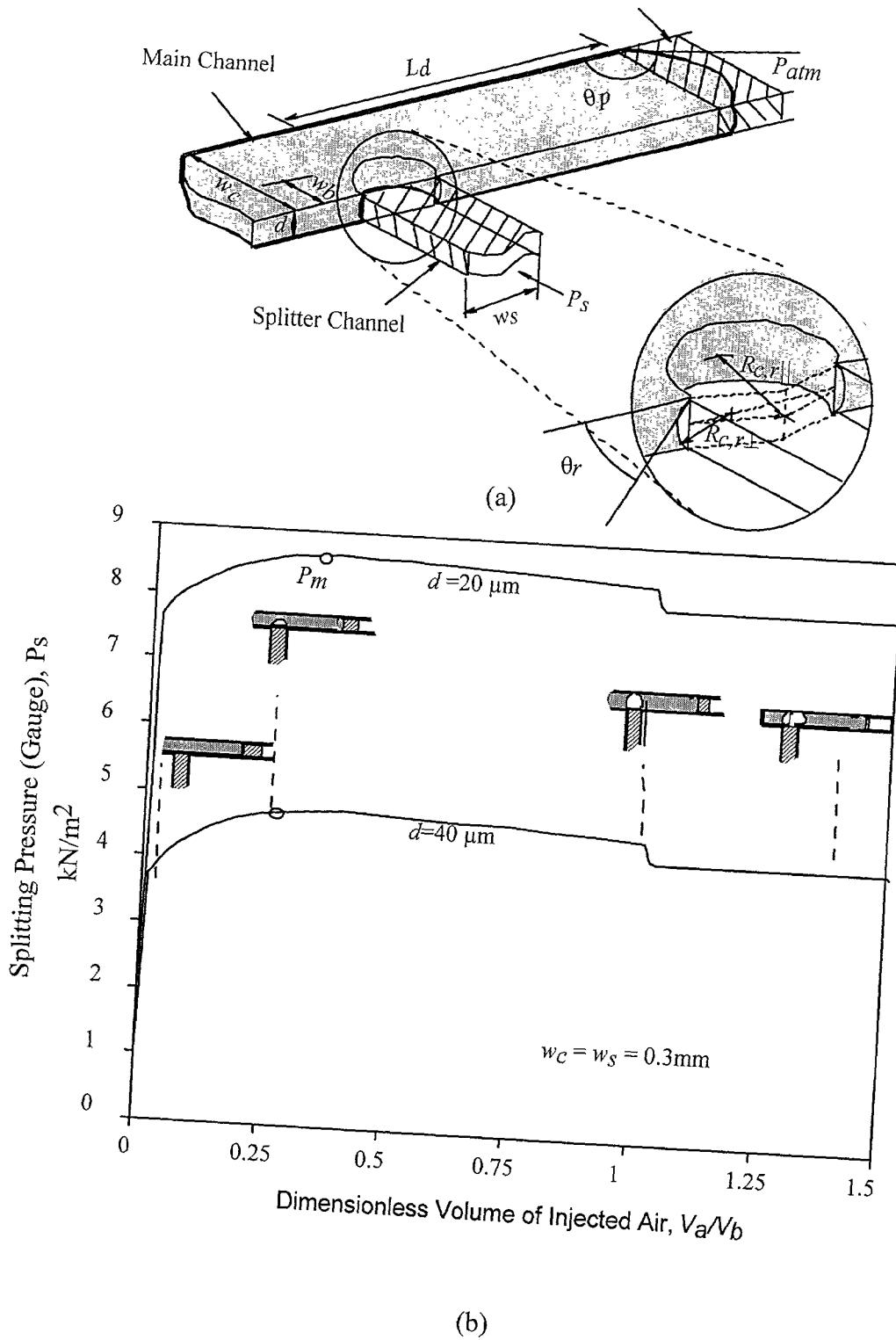
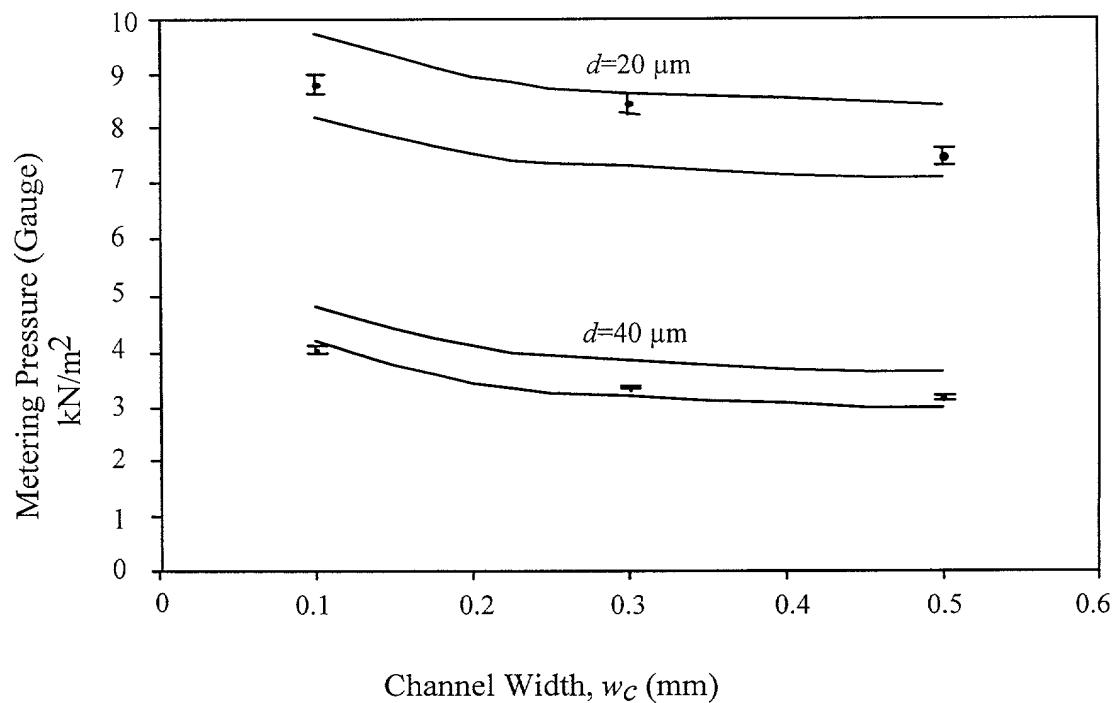
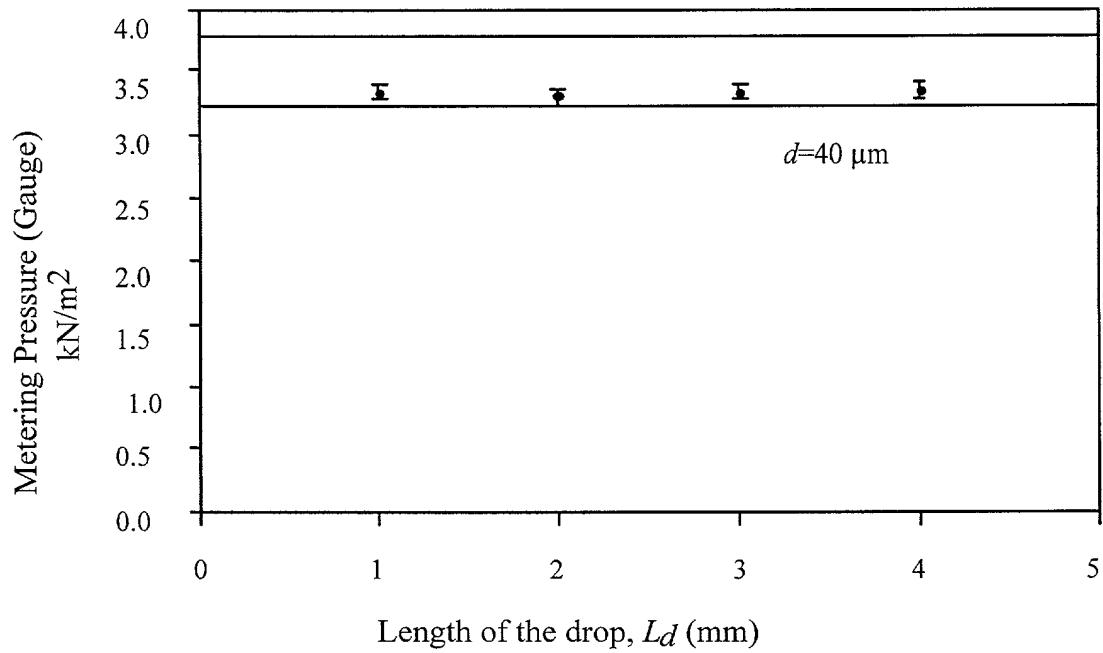


Figure 17



(a)



(b)

Figure 18

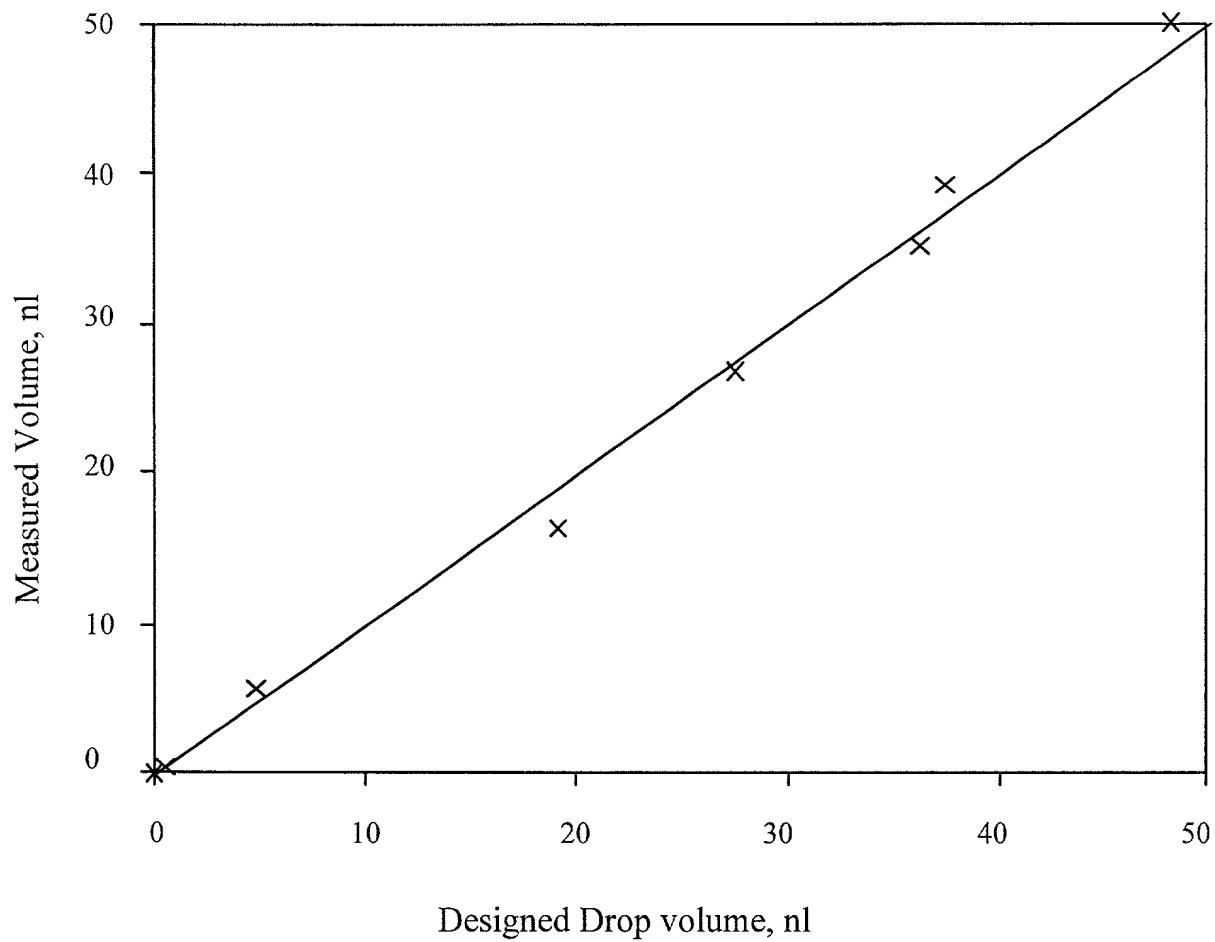


Figure 19

FIGURE 20

PCR Results with Standard Reagent Amounts

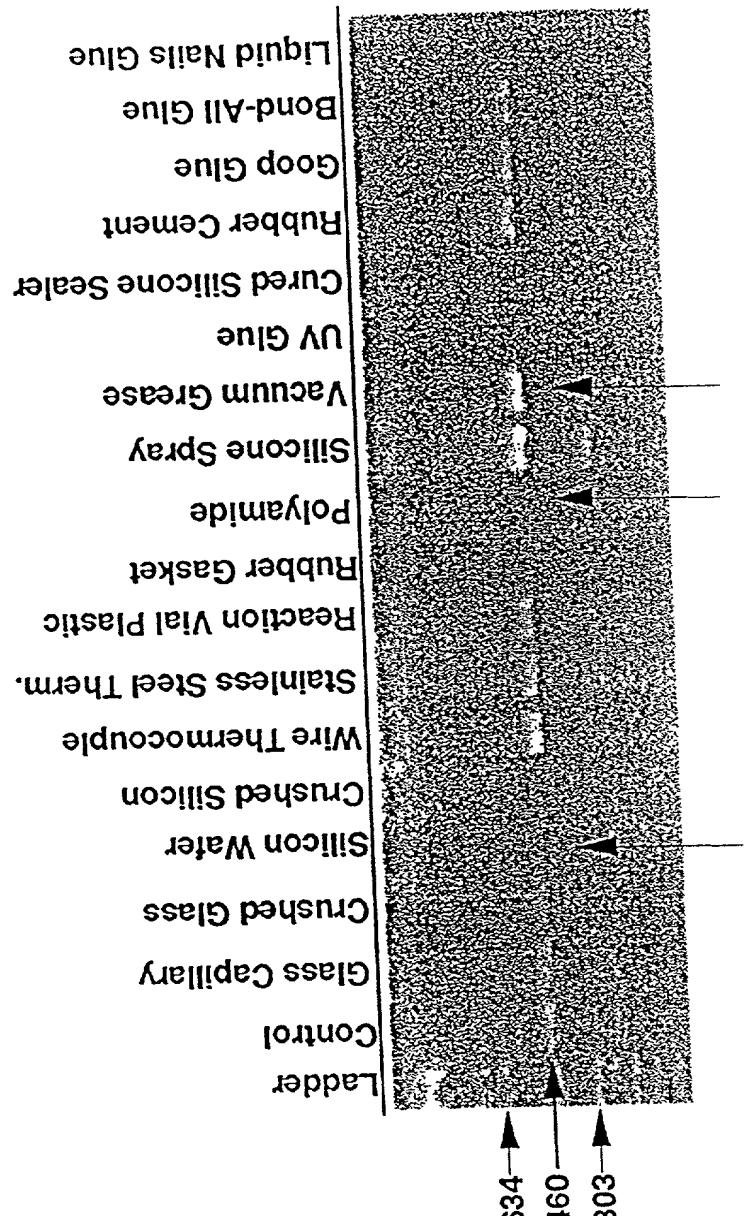
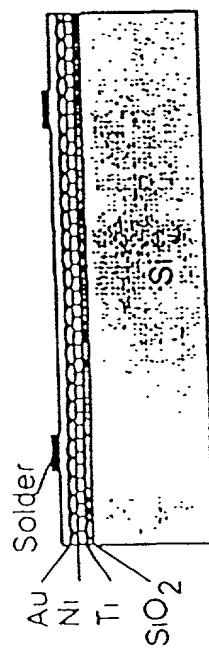
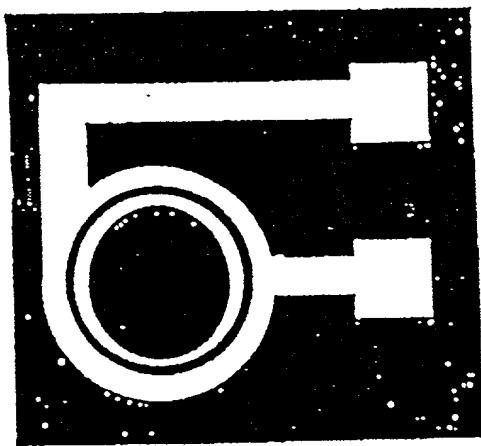


FIGURE 21





[■] Copper [■] Solder

[■] Ni/Au [■] Photorev. 3'

[■] Ti [■] Ti/Pt

[■] Ti-Ni/Au

FIGURE 22

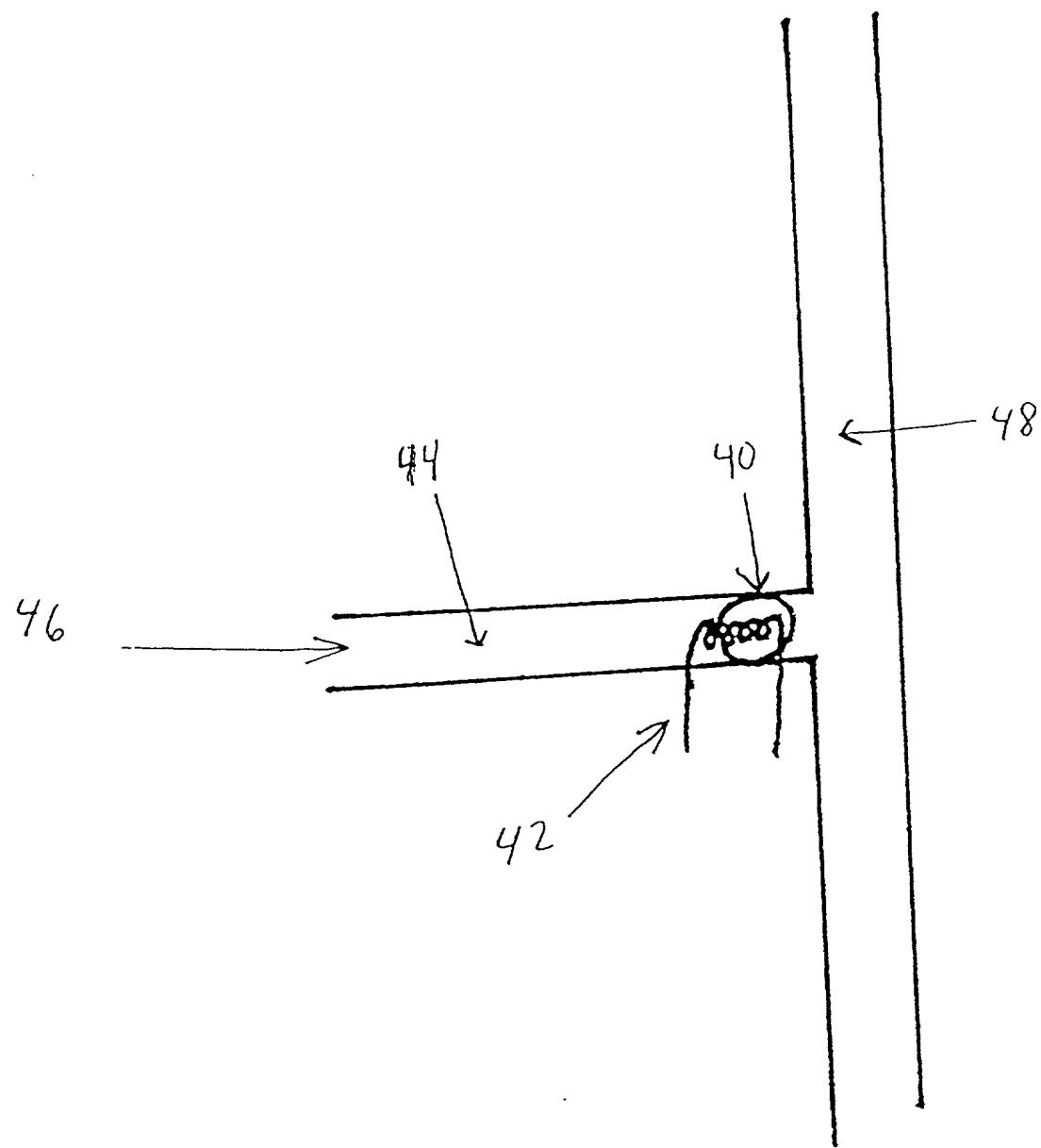


FIGURE 23

FIGURE 24

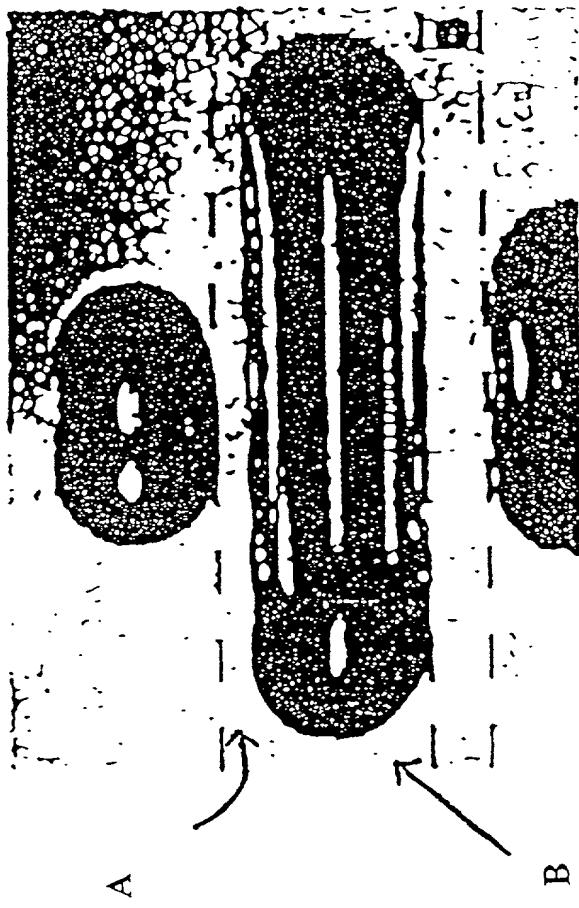


FIGURE 25

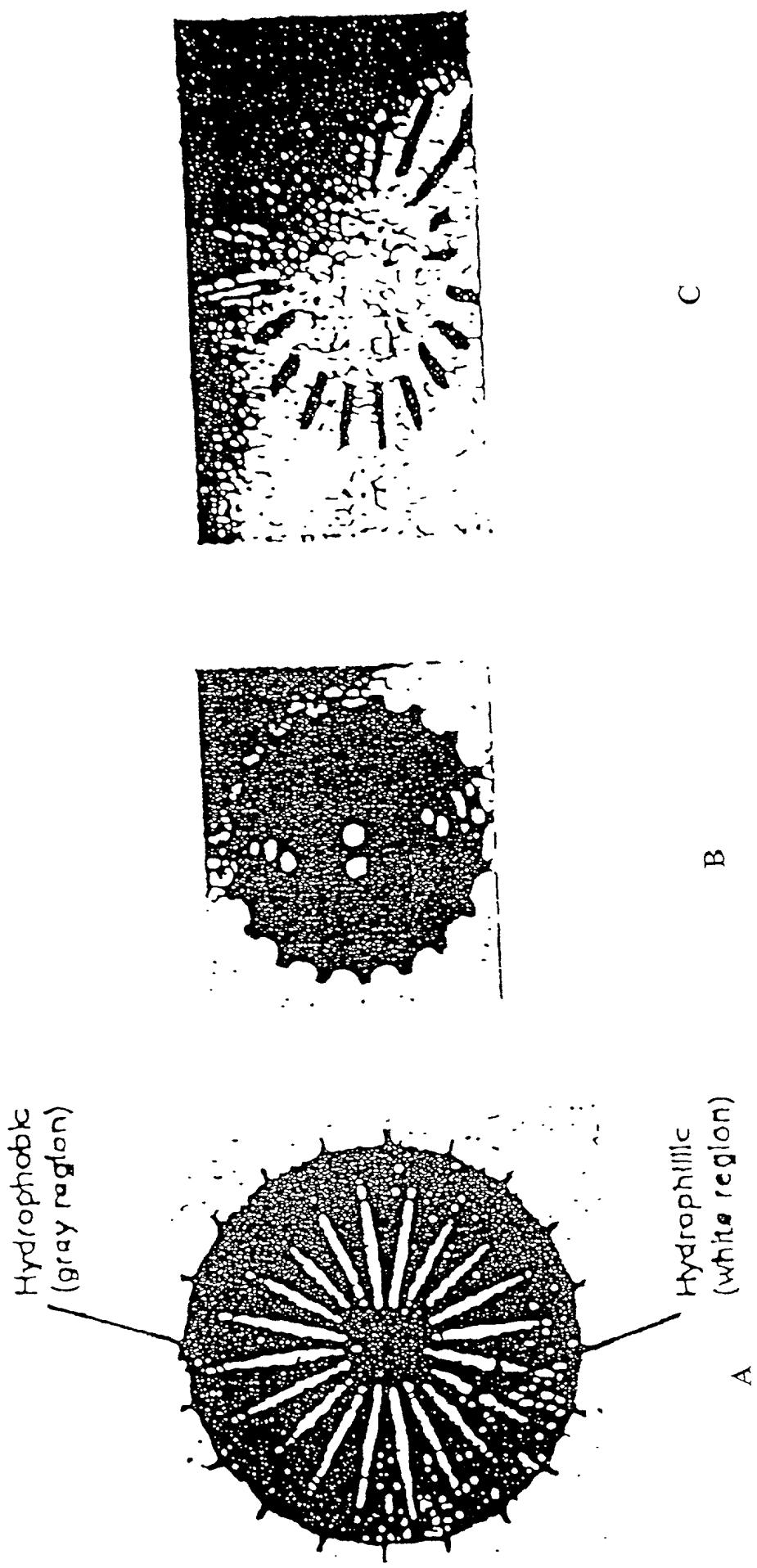


FIGURE 26A

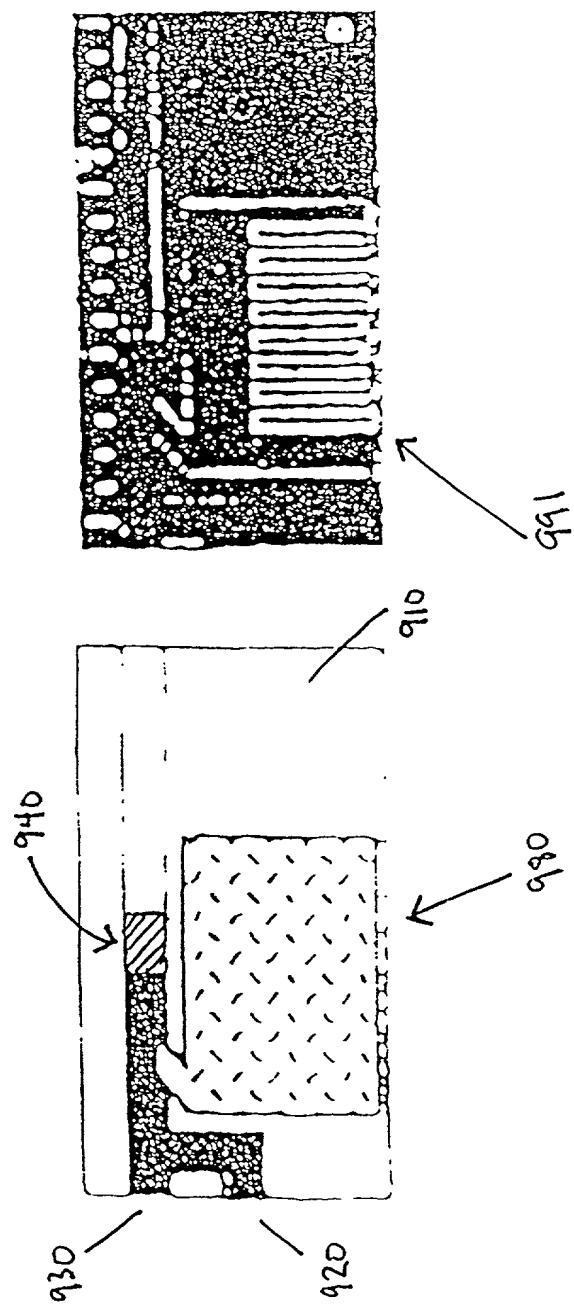


FIGURE 26B

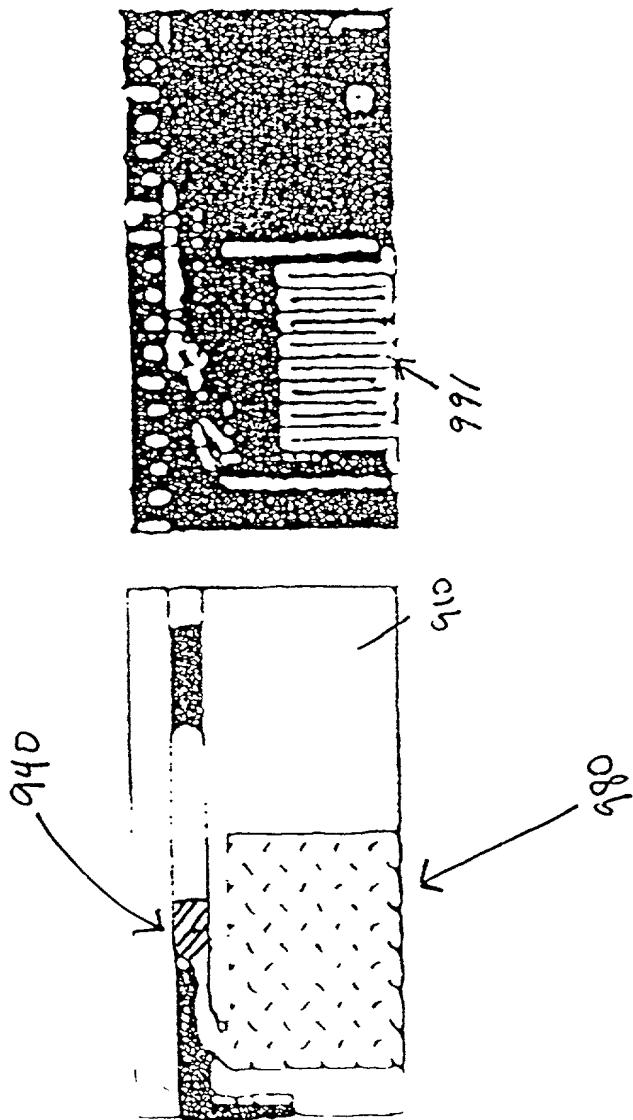


FIGURE 26C

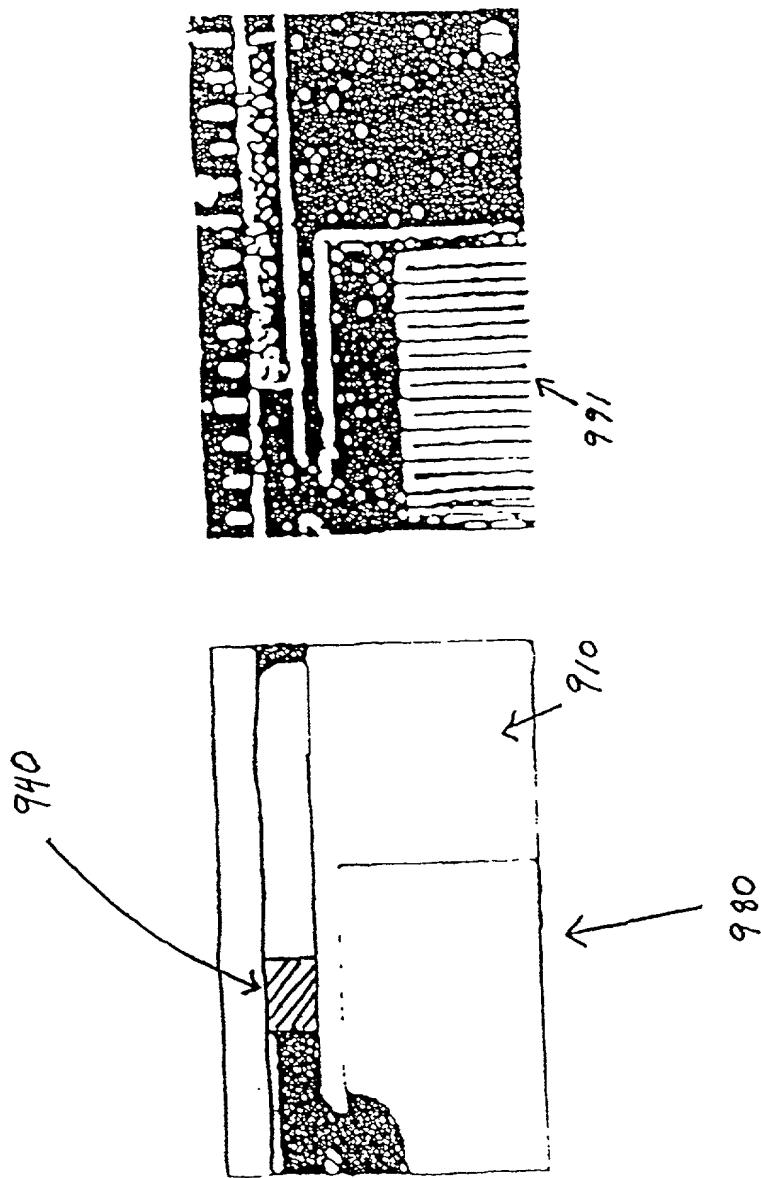


FIGURE 26D

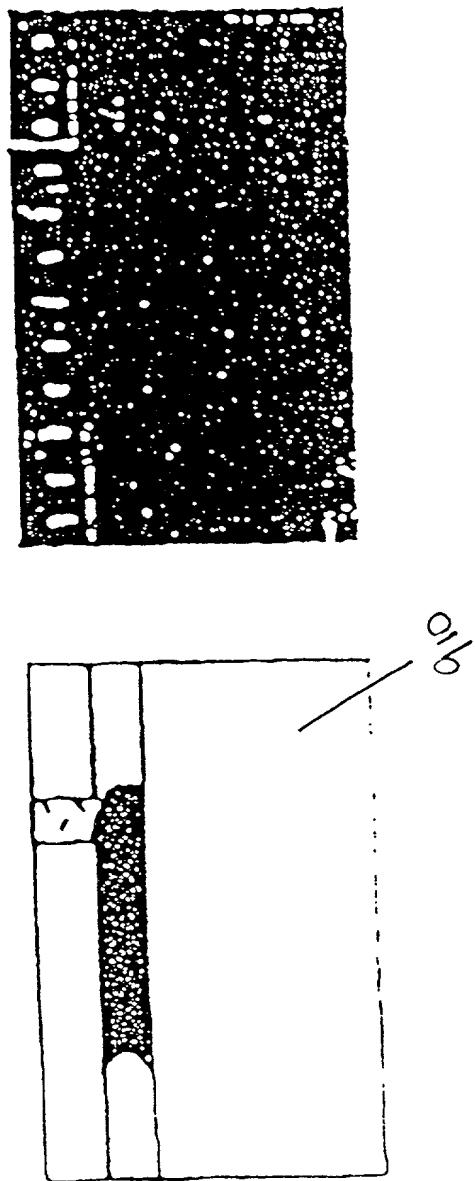


FIGURE 26E

